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UNITED STATES DEPARTMENT OF AGRICULTURE
PLANT QUARANTINE AND CONTROL ADMINISTRATION
Pink Bollworm Project
801 Smith-Young Tower
San Antonio, Texas.

MISCELLANEOUS PICTURES
PINK BOLLWORM

An extraordinary stalk of Acala cotton showing
no insect or other injury.



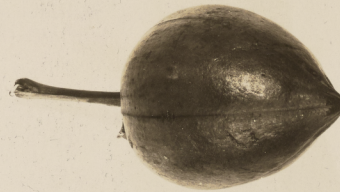
Close-up view of cotton field, El Paso Valley, Texas



Bolls from stalk of Acala cotton



Single boll of Acala cotton



A stalk of cotton showing all bolls destroyed
by the pink bollworm.



- (a) A field of Pima cotton, Arizona.
(b) A field of Upland cotton, Safford District.
(c) A field of cotton in June.



- (a) A picking scene in the Laguna District in Mexico.
- (b) Bordo separating two cuts of cotton used for retaining the irrigation water applied before planting.



Inspectors in field looking for pink bollworm.



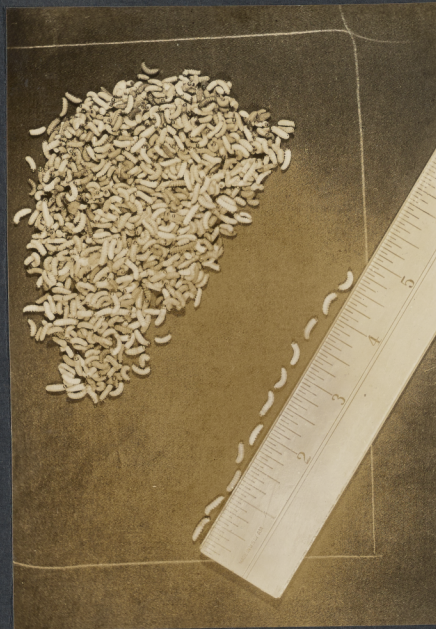
- (a) Ivan Shiller, the inspector who found the first pink bollworm in the United States at Hearne, Texas in 1917.
(b) A group of inspectors examining bolls.
(c) Examining gin trash.



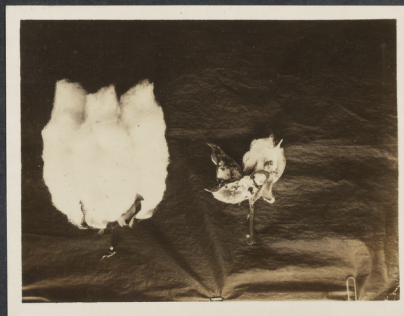
A group of State and Federal officials, 1918, seeing pink bollworm in the Trinity Bay section. Beginning at the left: Wilmon Newell, Plant Commissioner of Florida; Ernest E. Schell, Entomologist of Texas; K. H. Townsend, Federal Horticultural Board; Dr. W. D. Hunter, Member of Board; Fred W. Davis, Commissioner of Texas.



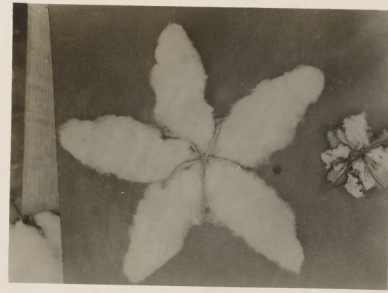
(a) $\frac{1}{8}$ Pink bollworms from the gin trash of one
bale in the Laguna District of Mexico.
(b) $\frac{1}{4}$ Pink bollworms, natural size.



- (a) Typical damage of pink bollworm.
(b) All the bolls from fifty stalks taken at random in the Laguna District by Eng. Gabriel Itie, Entomologist of the Republic of Mexico; M. C. Tanquary, Entomologist at the Texas Experimental Station; and, R. E. McDonald, Texas Department of Agriculture, 1921. The pile on the right contains 1462 bolls totally ruined by the pink bollworm. The pile on the left contains 600 bolls more or less injured but still pickable.



Pink bollworm in cotton bloom. In the right hand corner
is a typical rosette condition, which the inspector needs to
learn to look for.



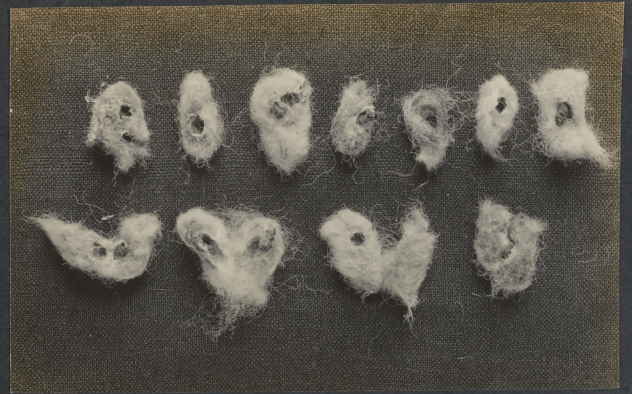
(a) Infested squares.
(b) and (c) Typical injured bolls compared to normal.



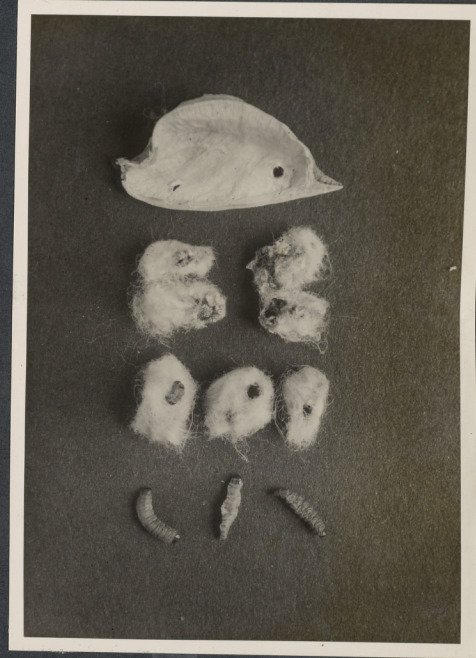
Typical injury.



Injury to lint and seed.



Showing pink bollworm natural size, double seed,
and typical partition holes through the carpels.



- (a) Left: Injury by the common bollworm and injury by the pink bollworm. Note the difference in size of the entrance hole of the common bollworm (*Heliothis obsoleta*) and the exit holes of the pink bollworm on the right.
- (b) Typical injury to small bolls by the pink bollworm.



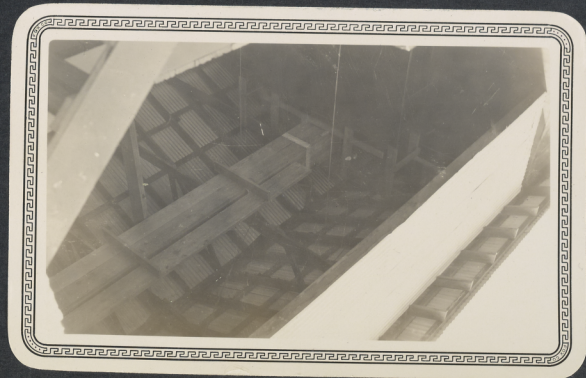
Typical cotton gins.



Cotton gin and seed house



- (a) The seed house adjoining a cotton gin where sterilized seed are stored. Note the customer's boxes in the entrance, which receives seed from the sterilizer placed immediately under the roof.
- (b) Showing the sterilizer passing beneath the roof.



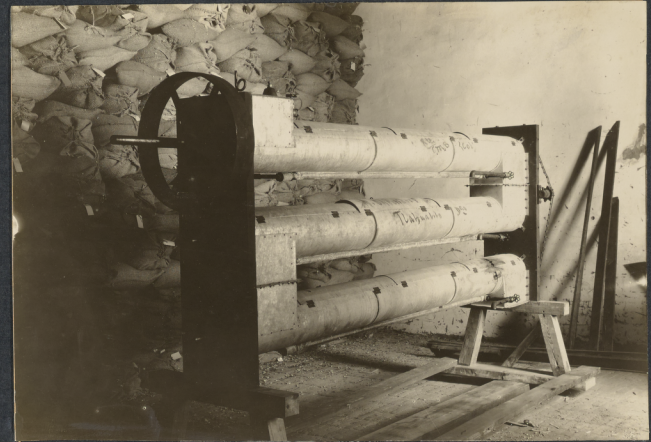
Showing gin waste accumulated in the vicinity of
gins.



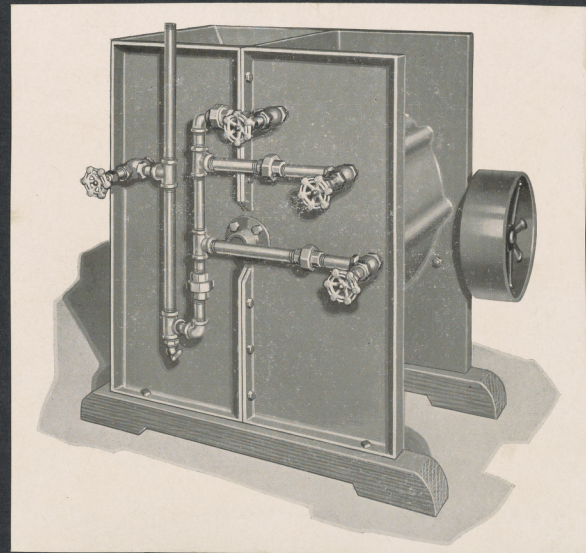
- (a) An accumulation of gin trash.
(b) Interior view of gin showing part of a sterilizer.



The Rylander Drum Sterilizer.



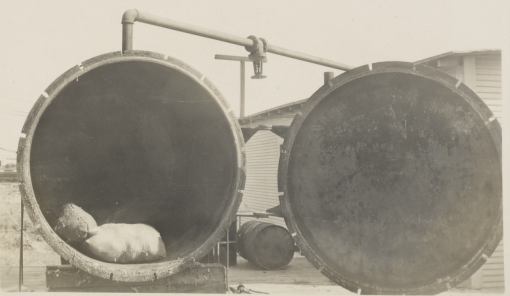
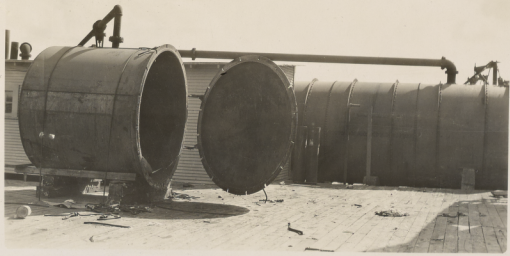
Rylander Live Steam Sterilizer



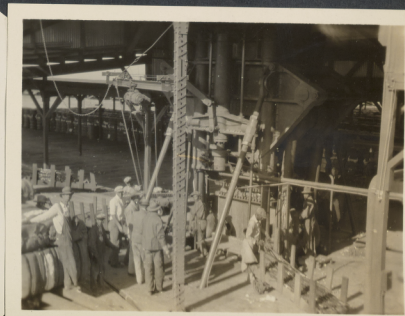
Vacuum fumigation tube.



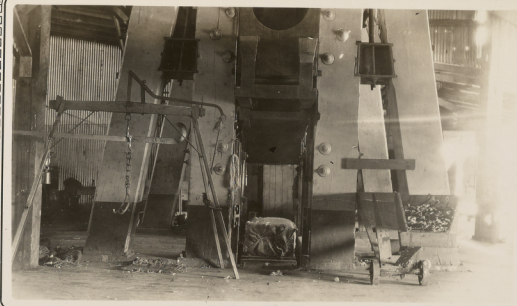
Small vacuum fumigation tube for fumigating
samples and single bales.



(a) and (b) Vacuum tubes showing method of
loading compressed cotton.
(d) A compress in operation



Interior of a cotton compress.



Exterior views of cotton oil mills showing
baled linters stacked on the yard.



Cotton in warehouses.



(a) and (b) Machinery for moving waste from an oil mill to an incinerator.
(c) An incinerator.
(d) The location where waste is carried by wagon from an oil mill and burned.



- (a) Pink bollworm infested okra.
(b) Pink bollworm infested seed pods of Mimulus syriacus.



Cotton sprouts growing from over-wintering roots,
called in Mexico, soca; called in the United States,
volunteer.



Field cleaning. Raking the stalks after cutting.



Field cleaning. Taking the stalks out by hand.
Picking up the final leavings.



Field cleaning.
Raking the field and picking up the leavings.



Field cleaning. Piling the stalks.



Field cleaning.
(a) Burning the stalks.
(b) Burning infested cotton, 1918.



- (a) Bird's-eye view of Hearne, Texas, where the first pink bollworm was found in the United States.
(b) Camps of the clean-up gang.



A typical irrigation ditch in the western
infested area.



A typical desert scene, which is the kind of country
separating the various irrigated projects of the western
infested district.

